

[CLAIMS]

1. A feed mechanism for a vending machine capable of actively coping with a change in size of products, the feed mechanism comprising:
 - a cabinet;
 - 5 a driving unit mounted on an upper portion of the cabinet;
 - a transporting unit driven by the driving unit and having a plurality of pockets for receiving the products; and
 - a discharging unit discharging the products transported by the transporting unit.
- 10 2. The feed mechanism as set forth in claim 1, further comprising a sensing unit for sensing a position of each of the products.
3. The feed mechanism as set forth in claim 1, wherein the transporting unit includes an endless belt having both ends connected to each other, and a plurality of pockets disposed on the endless belt at a predetermined interval.
- 15 4. The feed mechanism as set forth in claim 3, wherein the endless belt and each of the pockets are formed of a soft material.
5. The feed mechanism as set forth in claim 4, wherein all of the pockets includes a strip subjected to any one of coating and bonding with a silver nano-fiber.
- 20 6. The feed mechanism as set forth in claim 1, further comprising a spacing unit for adjusting a space for receiving the products according to the size of the products, wherein the spacing unit includes a spacing plate located in the cabinet and grasping pins fixed to the spacing plate and selectively displaced along a spacing slot.
7. The feed mechanism as set forth in claim 6, wherein the spacing plate is composed of two spacing plates, the two spacing plates are perpendicular to each other.

8. The feed mechanism as set forth in claim 1, wherein the discharging unit is installed on a lower portion of the cabinet at a predetermined angle.

9. The feed mechanism as set forth in claim 1, wherein the discharging unit includes a vibration member installed horizontally on a lower portion of the cabinet, and
5 a vibrator vibrating the vibration member.

10. The feed mechanism as set forth in claim 1, wherein the discharging unit includes a vibrator installed on a lower portion of the cabinet, the vibrator including a motor, a gear box coupled with the motor and a vibration member coupled with the gear box.

10 11. The feed mechanism as set forth in claim 10, wherein the vibration member includes at least one coil spring inclined at a predetermined angle.

12. The feed mechanism as set forth in claim 2, wherein the sensing unit includes a limit switch fixed on a lower portion of the cabinet, and a linkage cooperating with the limit switch.

15 13. The feed mechanism as set forth in claim 1, wherein the driving unit includes a motor, a driving shaft coupled with the motor, and a driven shaft cooperating with the driving shaft.

14. The feed mechanism as set forth in claim 13, wherein a driving unit holder is installed between the motor and the driving shaft to rotatably support the driving shaft,
20 the driving unit holder being provided with a reinforced shaft parallel to the driving shaft.

15. The feed mechanism as set forth in any one of claims 3, 4 and 5, wherein each

of the pockets includes a rest for resting the product, the rest being located in any one of parallel and oblique directions with respect to the driving shaft.

16. The feed mechanism as set forth in claim 15, wherein each of the pockets includes an input opening for inputting the product and an output opening for outputting the product, the output opening having a corner cut off.
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